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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,945	03/16/2001	Toshiaki Katsuma	KAW-247-USAP	5294

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EXAMINER

PATEL, GAUTAM

ART UNIT

PAPER NUMBER

2655

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/808,945

Applicant(s)

KATSUMA, TOSHIAKI

Examiner

Gautam R. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5 and 6 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

1. Claims 1-6 are pending for the examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. §119(a)-(d), which papers have been placed of record in the file.

Specification

3. The disclosure is objected for following reasons.

The title of the invention is neither precise nor descriptive. A new title is required which should include, using twenty words or fewer, claimed features that differentiate the invention from the Prior Art. It is recommended that the title should reflect the gist of or the improvement of the present invention.

Correction is required.

Claim Rejections - 35 U.S.C. §102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3 and 5-6 are rejected under 35 U.S.C. ' 102(e) as being anticipated by Sugiura et al., US. patent 6,130,872 (hereafter Sugiura).

As to claim 1, Sugiura discloses the invention as claimed [see Figs. 1-28, especially 1, 3 and 8] including a diffraction type lens and zone plates, comprising:

A diffraction type lens [fig. 1, unit 50], disposed in a luminous flux, having a wavelength selectivity;

said lens being constituted by a substrate having one surface formed with a zone plate exhibiting a smaller converging action with respect to a wavelength X1 [650 nm] of light and a greater converging action with respect to a wavelength X2 [780 nm] of light, and the other surface formed with a zone plate exhibiting a smaller converging action with respect to said wavelength X2 of light and a greater converging action with respect to said wavelength X1 of light, said substrate being transparent to said wavelengths X1 and X2 of light [col. 6, lines 42-67 and col. 8, lines 2-19].

5. As to claim 2, Sugiura discloses:

said diffraction type lens is shaped like a parallel plate [col. 6, lines 42-67 and col. 8, lines 2-19].

6. As to claim 3, Sugiura discloses:

each of said zone plates comprises concentric gratings each having a rectangular cross section [col. 9, lines 20-45].

7. As to claim 5, Sugiura discloses:

said luminous flux incident on said diffraction type lens is substantially a parallel luminous flux [col. 9, line 55 to col. 10, line 9].

8. As to claim 6, Sugiura discloses:

luminous flux is converged at a position where two kinds of optical recording media having thickness values different from each other are disposed, said wavelength

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X1 of light being used for recording or reproducing one optical recording medium [DVD], said wavelength X2 of light being used for recording or reproducing the other optical recording medium [CD] [col. 6, lines 11-67 and col. 8, lines 2-19].

Allowable Subject Matter

9. Claim 4 is objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

NOTE: Claim 4 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a diffraction type lens which includes “one surface formed with height h1 and second with height h2 which satisfying four equations as disclosed in claim 4 and values of K1 and K2 are between 0.65 to 1.35”. It is noted that the closest prior art, Sugiura et al. (US 6,130,872) shows a similar apparatus which has dual light sources with two different wavelengths and also computes the surface of the lens [fig. 3] based on height [thickness] and refractive index and also clearly indicates relationship of two wavelengths and refractive index [figs. 20 and 21]. However Sugiura fails to disclose details of the equations used in these calculations in specific manner as claimed in claim 4, and also disclosed in specification [see page 3].

Other prior art cited

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
1. Ito et al. (US. patent 6,154,278) “Optical encoder ..”.
 2. Kato et al. (US. patent 6,115,345) “Super-resolution optical head apparatus”.
 3. Fujita (US. patent 6,052,353) “Double refraction plate with refractive grating pattern ...”.

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- a. Katsuma (US. patent 6,166,854) "Diffraction type filter ...".

Contact information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.



Gautam R. Patel
Patent Examiner
Group Art Unit 2655

July 31, 2003